

ABSTRACT OF THE DISCLOSURE

Solid materials have been developed to remove arsenic compounds from aqueous media. The arsenic is removed by passing the aqueous phase through the solid materials which can be in molded, granular, or powder form. The solid materials adsorb the arsenic leaving a purified aqueous stream. The materials are aerogels or xerogels and aerogels or xerogels and solid support structure, e.g., granulated activated carbon (GAC), mixtures. The species-specific adsorption occurs through specific chemical modifications of the solids tailored towards arsenic.